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September 5, 1961

MEMORANDUM FOR GENERAL MAXWELL TAYLOR, MILITARY
REPRESENTATIVE TO THE PRESIDENT

SUBJECT: Strategic Air Planning and Berlin

1. The plan which now determines the use of our strategic striking power in the event of war is SIOP-62. This plan, prepared well before the present Berlin crisis, is built around two concepts that may well be inappropriate to the current situation. First, the plan is essentially a second-strike plan, which envisages a response to an attack on us, the size of which depends essentially on the amount of warning of enemy attack we receive. The minimum warning assumed is one hour; this suffices to generate the alert force of nearly 900 vehicles carrying almost 1500 weapons. In 28 hours, the full force of some 2300 vehicles carrying about 3400 weapons can be launched. Second, the plan calls for strikes against a single set of targets, the "optimum-mix" of Sino-Soviet air and missile bases, and cities, and the various force generation options determine how far down the list the targets are struck, and the degree of their coverage by more than one weapon to assure achievement of planned damage levels. The single target list embodies the notion of "massive retaliation", the threat of which is expected to deter attack. At least two sets of circumstances that seem likely to arise in the context of the struggle over Berlin suggest the need for supplementary and alternate plans. The first is the problem raised by a false alarm, whether arising from a deliberate feint or a misinterpretation of events, that results first in the launching of SAC and then a decision to recall it at the positive control line. The second is the broader question of whether we might wish to strike first, and thus how appropriate both the target list and the operational concept of the SIOP are in that case.

2. If the present state of tension over Berlin persists over a period of months, it is likely that, at some point, a Soviet action will appear to threaten an attack on the United States with sufficient likelihood and imminence to cause us to launch SAC, and initiate the SIOP. After some lapse of time, we may conclude that we had been wrong, and, under the positive control arrangements, recall the force. There is, roughly, a six-hour interval between bases and the positive control line for aircraft

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in the first wave. After recall and return to base, that part of the force which had been launched would require a stand-down of about eight hours before it was again ready for launch. Thus, there would be a significant degradation of our capability for a short period of time after such a false alarm. How large it was would depend on how much time had elapsed when the recall was ordered. If the full six hours had elapsed, not only would the alert force (one-third of the vehicles carrying nearly one-half the weapons and a higher proportion of the megatonnage) have reached the neighborhood of the control line, but another 22% of the full force would already have been launched.

Further, in the nature of the SIOP, that part of the force which was still in reserve might not be ready to attack an appropriate set of targets, since their initially assigned targets would have been chosen under the assumption that the vehicles in question were part of the follow-on force, coming after the targets assigned to the first wave had already been attacked. These consequences of a false alarm suggest two dangers: First, the value to the Soviets of a faint; second, the danger that we will have a tendency to refuse to interpret any alarm as a false alarm, once the force has been launched, since the temporary degradation of our striking capacity consequent on a recall may be unacceptable in the situation which provoked the alarm.

3. The second and broader question is whether a second-strike plan of massive retaliation is appropriate to our current position. Our military contingency plans for Berlin call for a number of ground force actions of increasing scope and magnitude. Their basic aim is to force the Soviets to withdraw the impediments to our access to West Berlin which have called them forth. Implicitly, they rest on the expectation that the Soviets will not respond, at least to the earlier steps, by initiating general war. If each increase in the scale of our action is met by a corresponding and always dominating increase in the Soviet response, we will clearly be forced at some point to move from local to general action. Is the SIOP the appropriate form of this action? If the SIOP were executed as planned, the alert force would be expected (in the statistical sense) to kill 37% of the population of the Soviet Union (including 55% of the urban population) and the full force, 54% (including 71% of the urban population), and the two forces, respectively, to destroy 75% and 82% of the buildings, as measured by floor space. (Further, there is reason to believe that these figures are underestimated; the casualties, for example, include only those of the first 72 hours.) Is this really an appropriate next step after the

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repulse of a three-division attack across the zonal border between East and West Germany? Will the President be ready to take it? The force of these questions is underlined by the consideration that the scale and nature of the SIOP are such as inevitably to alert the Soviet to its initiation, and that all [REDACTED]

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b1 [REDACTED] Thus Soviet retaliation is inevitable; and most probably, it will be directed against our cities and those of our European Allies.

What is required in these circumstances is something quite different. We should be prepared to initiate general war by our own first strike, but one planned for this occasion, rather than planned to implement a strategy of massive retaliation. We should seek the smallest possible list of targets, focussing on the long-range striking capacity of the Soviets, and avoiding, as much as possible, casualties and damage in Soviet civil society. We should maintain in reserve a considerable fraction of our own strategic striking power; this will deter the Soviets from using their surviving forces against our cities; our efforts to minimize Soviet civilian damage will also make such abstention more attractive to them, as well as minimizing the force of the irrational urge for revenge. The SIOP now provides for no reserve forces, except insofar as aircraft return and can be recycled into operation.

4. Two recommendations for action follow from this discussion: both in the realm of inquiry, initially.

a. CincSac should be asked, in the appropriate fashion, to examine the impact of a false alarm--i. e., one that results in the launch and then the recall of the force--on his plans in the context of the current situation, and to make whatever changes in his plans that the examination indicates. In making this examination, CincSac should be urged to examine targetting, as well as operational aspects of the problem, since the questions involved go not only to how the operational plans can be modified so as to minimize the degradation of capability consequent on a false alarm, but also, what might be done in the way of programming alternate targets for various segments of the force, so that the remaining capability can always be brought to bear in the most useful way.

b. The Joint Chiefs; the Director, Strategic Target Planning; and CincSac should be asked, in the appropriate fashion, to consider

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the preparation of alternatives to SIOP-62 for the use of our strategic striking power in the context of Berlin contingency planning. In so doing, they should be asked to give special attention to planning first strike attacks at Soviet long-range striking power, and planned so as to minimize casualties and damage to the Soviet, and to reduce to the maximum extent possible both Soviet capabilities and Soviet incentives to strike a retaliatory blow at American and Allied cities.

It is clear that much of the concrete planning involved in both of these activities overlaps, and therefore there is an advantage in combining the two requests.

5. To indicate in a crude and sketchy way that plans of the type called for in 4b. may be feasible, Annex A is attached. This sketches some of the elements of such an operation. Annex B, by contrast, provides a summary of SIOP-62. Annex C is a draft request for the planning study described in 4b., so drafted as to be sent out either by yourself or the President.

Carl Kaysen

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ANNEX A

AN ALTERNATIVE TO SIOP-62

The current crisis over Berlin makes it desirable for the United States to consider how it would use its strategic striking power in response to a major reverse on the ground in Western Europe. In this situation, we may well wish to assume the initiative in beginning general war. Is there a plan which offers the prospect of a more effective and less frightful operation than SIOP-62? It seems reasonably clear what objectives we would like to achieve under the postulated circumstances. These objectives would be to destroy the long-range nuclear offensive capabilities of the Soviet Union; to limit or avoid damage to the United States and its Allies; to limit damage to the Soviet Union compatible with the achievement of the military objective and to have capabilities in reserve available to press home the attack, if necessary, to dissuade the Soviets from using any residual forces against the U.S. and Allied cities.

Achievement of these objectives would obviously require up-to-date, complete information about the target system, and an attack so delivered and coordinated as to prevent the enemy from launching his vehicles. The task looks imposing considering that the target system lies in an area covering millions of square miles. In principle, the ICBM would be the ideal vehicle for attack because of its speed and the predictability of its arrival on target. However, the United States will have only 189 ballistic missiles available over the next eight or nine months. Of these 60 will be Polaris and 30 Jupiter. The reliability of our missiles will be low, their accuracy uncertain, and the problems of achieving simultaneity on target formidable. These factors would appear to rule out the ballistic missile as a candidate for a minimum-warning attack at the present time.

We are left then, with the bombers, and particularly with the B-47's, the B-52's, and overseas-based or carrier-based aircraft. But the bombers are not looked upon as the instruments for a minimum-warning attack for a number of reasons. The very smallest target system is usually calculated as around 150 DGZ's, and even then there is a question as to whether all the Soviet ICBM sites have been included. Enemy early warning systems

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represent a hazard and there are the enemy defenses which must be penetrated. The problem of getting the requisite combat radius, with the bomber and yet recovering it looks difficult. So do the problems of coordination. Working back from the DGZ's to the number of aircraft required for the mission usually results in an answer of mass; and mass means a high probability that the enemy will detect the raid in time to launch some or all of his force. But does mass really have to be the answer to the problem?

Consider first the size of the target system. There are three types of targets which it seems essential to destroy in the first wave of an attack. They are the home and staging bases of the Soviet heavy and medium bombers, and the ICBM sites. Let us suppose, for purposes of calculation, that the number of DGZ's in these three categories is as follows:

<u>Home Bases</u>	<u>Staging Bases</u>	<u>ICBM Sites</u>	<u>Total DGZ's</u>
46	26	16	88

By this estimate, if we destroy a total of 88 DGZ's, we will have eliminated or paralyzed the nuclear threat to the United States sufficiently to permit follow-on attacks for mop-up purposes or for the elimination of other targets--such as bomber-capable airfields and nuclear storage sites--which might provide the basis for a later attack on the United States, and ICBM bases which threaten Europe.

Let us make four other assumptions, namely that:

2. One-third of the 62 DGZ's--or 21 points--are closely enough located to 21 other points so that one-third of the bombers assigned to the raid can hit two targets within a time of twenty minutes.

3. A majority of the bombers on the raid can carry four bombs.

4. All targets are soft-vulnerable, to, at most,

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With these assumptions, we must get a minimum of 41 bombers into the Soviet airspace and over their initial targets with no more than 15 minutes between the first and last bomb-drop. One hour thereafter we want to cover the staging bases and to have brought in the first of our follow-on forces.

The key to the raid, of course, is represented by the 41 bombers. This is a relatively small number, but it does not allow for some kind of attrition enroute, and it certainly does not by itself explain how the aircraft are to arrive undetected over their initial targets.

Two other assumptions are required. The first is that there will be an attrition enroute of 25%, making for 55 aircraft which will penetrate Soviet airspace. The second assumption is that these aircraft can fan out and penetrate undetected at low altitude at a number of different points on the Soviet early warning perimeter, then bomb and withdraw at low altitude.

In sum, the success of the raid would seem to depend upon small numbers, dispersal, and low-altitude penetration. If something on the order of 41 aircraft were involved in the attack, and all their weapons were dropped, this would involve a total of [REDACTED] bombs per aircraft [REDACTED]

all weapons should be airburst against the soft Soviet target system, mortalities in the Soviet Union would result primarily from blast and thermal effects rather than fallout. Given the locations of the targets, and assuming that there are no gross errors in the bombing, mortalities from the initial raid might be less than 1,000,000 and probably not much more than 500,000.

Two questions immediately arise about this concept. How valid are the assumptions, and do we possess the capability and skill to execute such a raid? Answers cannot be obtained without the most careful and detailed operational studies and exercises. But there are numerous reasons for believing that the assumptions are reasonable, that we have the wherewithal to execute the raid, and that, while a wide range of outcomes is possible, we have a fair probability of achieving a substantial measure of success.

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Consider first assumptions about the target system. Available information suggests that Soviet heavy and medium bombers are normally located on a maximum of 46 bases, and that there are 26 bases through which they could stage in order to fly missions against the U.S. The bulk of the heavy bombers appears to be based to the south; the Badgers are deployed on the western and eastern frontiers. As a consequence, they are somewhat difficult to get at, but they are maldeployed for offensive action and might conceivably be kept out of the war by elimination of the northern staging bases. All targets are soft. Moreover, the home bases are so located that at least one-third of the attacking bombers could hit two targets within a period of 15 minutes (a distance of about 110 miles if the bombers are traveling at 450 knots).

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An estimate of the number of ICBM sites that would have to be attacked in the near future is rather difficult to make. At the moment, it seems safe to say that there are at most 8 missile sites (of which 4 can be targetted now) and allow 2 aiming points for each site. This totals 16 DGZ's for the ICBM system.

They constitute 25 aiming points, mostly near the Western borders of the Soviet Union. One way of dealing with them is to assign them as follow-on targets, immediately after the first wave; assigned to long-range fighters based in Europe and carrier-based naval aircraft. Alternatively, it can be assumed that the threat of follow-on attack on Soviet cities by our reserve forces, accompanied by an explicit message to that effect, might be sufficient to deter Soviet retaliation against Allied cities in Europe.

There are three uncertainties about the numbers that have been mentioned. There could be more or fewer ICBM and MRBM sites. Depending on the circumstances, the heavy and medium bombers could be disposed to a larger system of bases and some of them could be airborne with bombs on board. Finally, missile-launching submarines could be in port, in transit, or on station and able to make their entry into the war. In short, a raid involving 41 bombers could be too large or too small; and some enemy forces could conceivably escape regardless of the skill with which the raid were executed. Last-minute intelligence might well be able to reduce some of these uncertainties.

A second major assumption is that there will be a maximum enroute attrition of 25%. This figure is intended to allow for aborts and for the hazards of low-level penetration. The supposition is that there would be no losses to enemy air defenses. The figure is quite arbitrary and

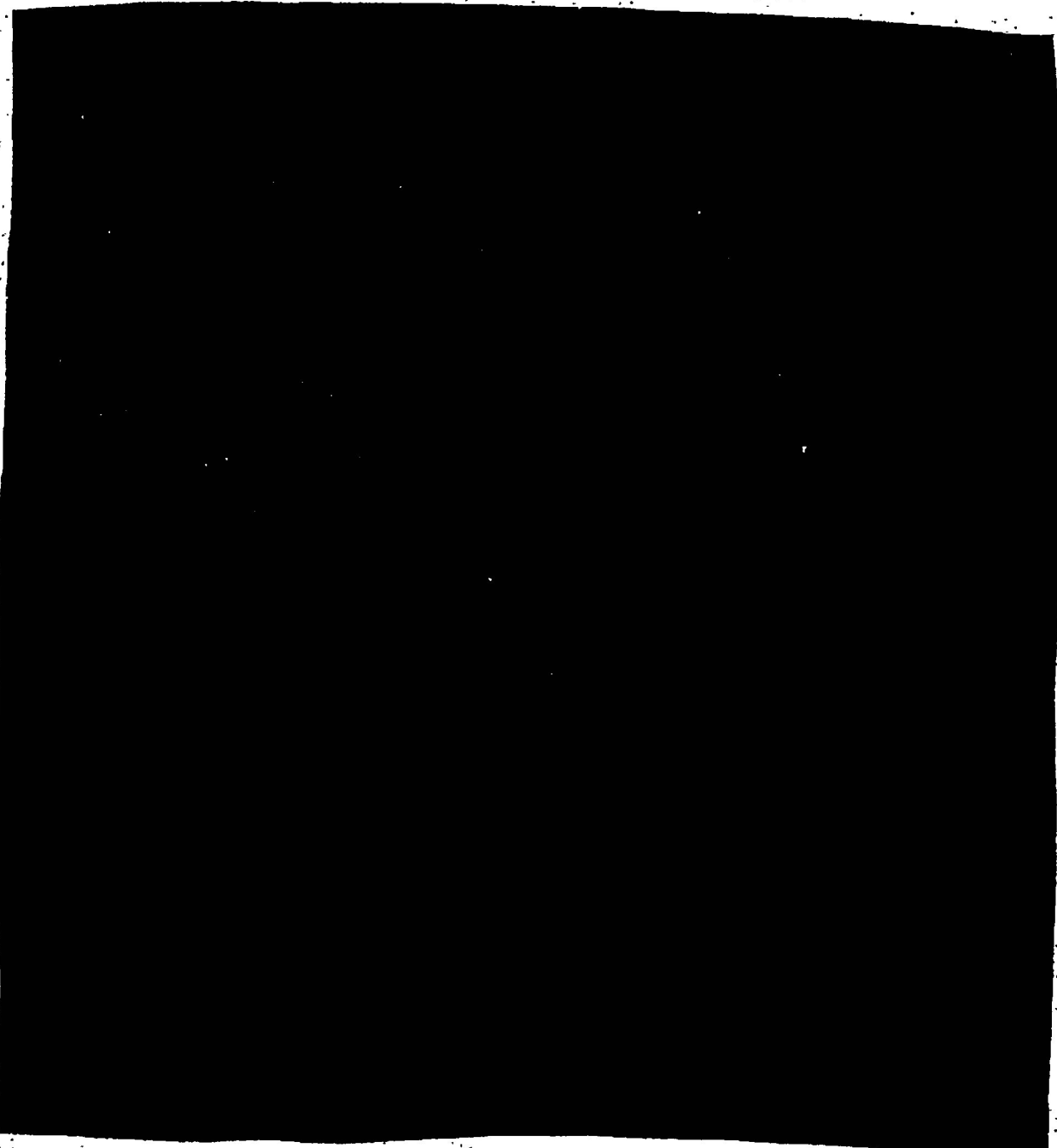
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requires examination. However, NIE 11-3-61 (11 July 1961) states that below about [REDACTED] the Soviet air defense system "would lose most of its effectiveness. At present, the USSR has little capability for active defense against very low altitude attacks." Careful planning of mission profiles might enable the bombers to evade such defenses.

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target system is counterbalanced by the danger of making the size of the raid too large. What constitutes the appropriate scale of attack must therefore be a matter of careful study and evaluation.

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The problems of designing and scheduling follow-on attacks are also substantial. The follow-ons represent the means of destroying targets not hit in the first wave and increasing the assurance of success against the initial targets. Among the most important targets for the follow-ons are the [REDACTED]

[REDACTED] but again, the urgency is counterbalanced by the importance of not giving warning of the initial attack. Several possible ways of getting around this dilemma may be available: the airborne alert aircraft, the A3D's and A4D's of the 6th Fleet, and the fighter-bombers in Europe. Their numbers, targeting, scheduling and recall possibilities would have to be examined in detail before determining whether or not they could be programmed effectively without giving away the attack.

Clearly, there are risks here, but there are opportunities as well. Since the U. S. would have the initiative, there are many steps it could take to reduce the consequences of partial success or failure, and to exercise control over Soviet behavior. Once bombs have fallen in the Soviet Union, air defenses can be alerted and reinforced. Civil defense measures can be instituted. Most important of all, very large strategic offensive capabilities can be generated. In these circumstances--if we are hitting selected military targets in the Soviet Union, and doing so in a discriminating manner--we should be able to communicate two things to Khrushchev: first, that we intend to concentrate on military targets unless he is foolish enough to hit our cities; secondly, that we are prepared to withhold the bulk of our force from the offensive (although we may continue to overfly them), provided that he accepts our terms.

A wide range of outcomes is possible from initiating such an attack. The raid could be recalled before any damage had been done. Detection might occur during penetration and enable the bulk of the Soviet force to launch. A partial success might be achieved. The initial attack might be a complete success, but planning and execution of the follow-on attacks might fail. Without further work, it is difficult

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to say what degree of success might be achieved, and with what degree of confidence. However, the choice may not be between "go" and "no-go;" it may be between "go" and SIOP-62. Compared with SIOP-62, the small-scale, minimum-warning attack--coupled with carefully timed and executed follow-on raids--has distinct advantages. In conclusion, it may be well to enumerate the principal ones.

1. Recall:

2. Minimum Warning:

3. Reduction in Soviet Long-Range Capabilities:

4. Control:

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APPENDIX TO ANNEX A

Attempts to assess the damage to the U.S. that might result from a minimum-warning attack on the Soviet Union must deal with a large number of uncertainties. This appendix will discuss the uncertainties and offer some rough calculations on the possible range of consequences.

1. It is not clear exactly what is the structure of the Soviet long-range offensive force or what would constitute its nuclear armament. Of major uncertainty is the number of bombers assigned to the strategic mission and the bomb loads they could carry. However, it seems reasonable to believe that the capability of the full force lies somewhere between 1000 and 2000 megatons. One typical set of assumptions would result in the following totals:

<u>Vehicle</u>	<u>Number</u>	<u>Weapon Yield</u>	<u>Number per Vehicle</u>	<u>Total Megatons</u>
Bison	80	1 MT	4	320
Bear	40	1 MT	4	160
Badger	400	1 MT	2	800
ICBM	52	7 MT	1	364
				<u>1644 MT</u>

Whatever the merit of this particular assignment, it indicates how important the bomber remains to the weight of the Soviet offensive (in this case contributing more than 75% of the megatonnage), and how critical it is to keep as much as possible of the bomber force out of the war.

2. Given these capabilities, there are a number of variables which would affect the amount of damage done to the U.S. The most important of these variables are:

a. The number of Soviet vehicles and weapons surviving the minimum-warning attack, penetrating U.S. defenses, and hitting their targets. This number could vary from zero to something approximating the full force.

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b. The numbers and types of targets attacked. The Soviets might have a targeting philosophy similar to our own and aim at an "optimum mix." They might have a city target system, or they might concentrate on military targets. If their command-control is as vulnerable as our own, and if their strike plans are as automatic, considerable disruption in their weapon assignments could occur, depending on the degree of success attached to the U.S. attack. Some of their targets might go untouched; others might be killed several times over. The range of possibilities is very wide.

c. The numbers and yields of weapons per target. The damage to the U.S., particularly if the attacks go against urban areas, is very sensitive to these factors.

d. The height of burst of the weapons. The mortalities in the U.S. are quite heavily dependent on the mix of air-bursts and ground-bursts that the Soviets choose for their weapons. Fallout can add few or many to the casualty list.

e. The civil defenses available and the uses made of them by the U.S. population. For the short-term, presumably, the U.S. will have, at best, an improvised shelter program. Nevertheless, even improvised shelters--if sensibly used--could bring about a sharp reduction in the mortalities from fallout.

3. A major uncertainty having to do with the outcome of a minimum-warning attack is the degree to which the U.S. can influence Soviet retaliatory choices. In principle, there are several possibilities open to us. We can indicate in peacetime that, despite our abhorrence of nuclear warfare, we intend to use nuclear weapons against strictly military objectives--unless, of course, the enemy initiates a counter-city campaign. We can also show the dramatic difference between military and urban-industrial campaigns in terms of mortalities and industrial damage. Should we initiate a minimum-warning attack, there are, as already suggested, a series of actions we can take to affect the Soviet response. We can:

a. Confine our initial attack to a small number of military targets, airburst weapons wherever feasible, and keep Soviet mortalities low. Russian cities would then stand as hostages to our follow-on attacks.

b. Communicate to the Soviet government what we have done; that we have large forces on their way which can hit military or

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civil targets--depending on the Soviet retaliation (if any); that we are prepared to offer reasonable terms in return for a cessation of hostilities; that, meanwhile, we shall overfly and do reconnaissance over the Soviet Union.

c. Design and launch our follow-on attacks so that they can hit military or civil targets, or refrain from bombing at all.

d. Point out that any effort by the Soviets to retaliate against European cities or try to seize Western Europe as hostage can only lead to an intensification of our attacks and the probable destruction of Russian communications and logistics.

In short, we can offer the Soviets powerful incentives to use whatever residual forces they command in a sensible manner. Whether these incentives would be powerful and timely enough remains a matter of speculation.

Charts I and II are intended to give a rough approximation of the range of mortalities that the U.S. might suffer from various weights and types of Soviet retaliation. Attention should be drawn to the lower end of the scale for the cases where the Soviets retaliate against cities. The number of mortalities that the U.S. suffers where only a few megatons are involved, while small percentage-wise--between three and seven percent--can range between 5,000,000 and 13,000,000. This is because New York and Chicago, with their great concentrations of people, can be virtually wiped out by a small number of high-yield weapons. In thermonuclear warfare, people are easy to kill.

The charts show ordinates corresponding to the full megatonnage calculated above, 50% and 10%, to give some indication of the results of the range of success or failure of the first attack.

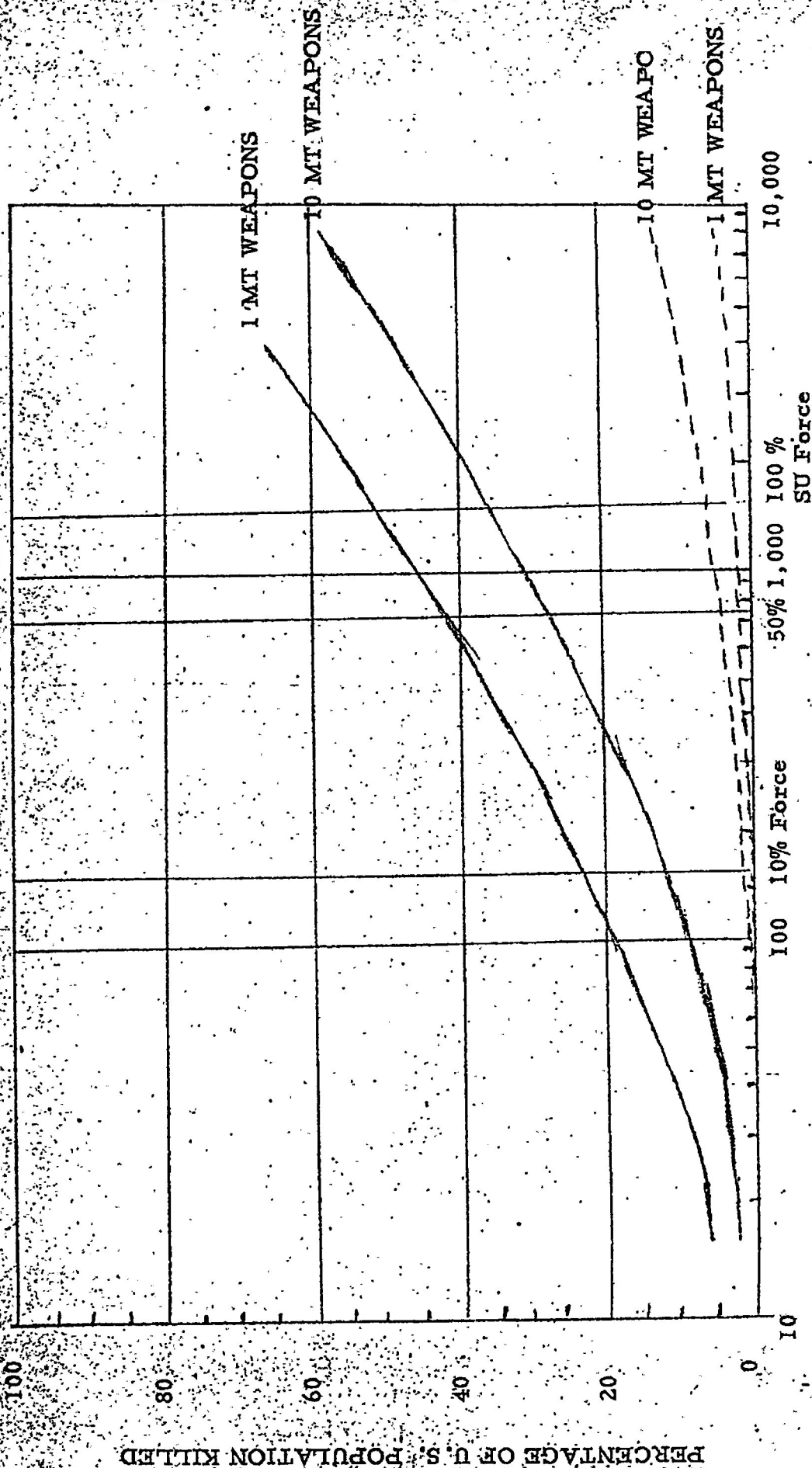
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CHART I

PROMPT DEATHS FROM ALTERNATIVE BOMBING ATTACKS
(DEATHS DUE TO BLAST AND PROMPT RADIATION)



TOTAL YIELD (Megatons)

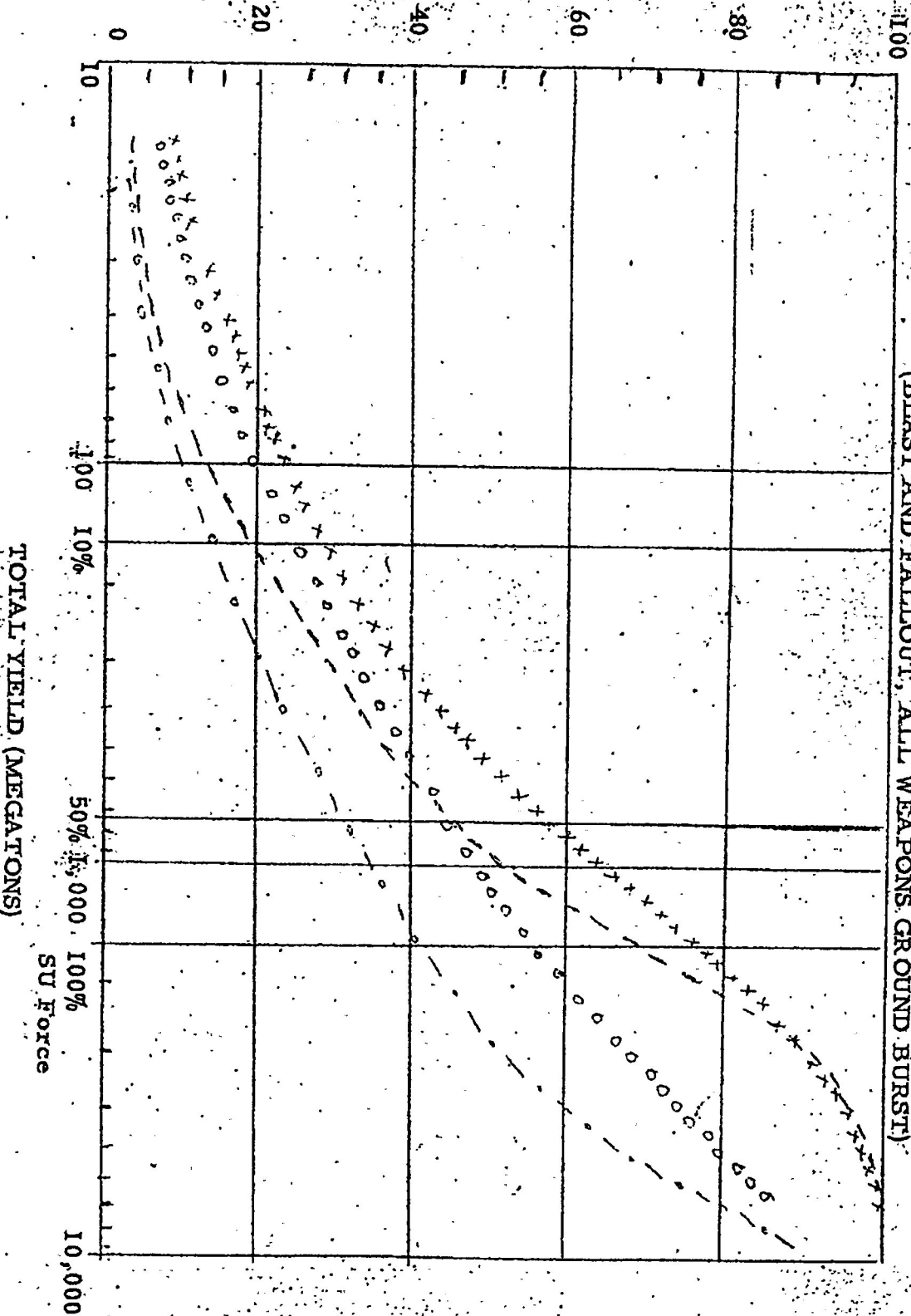
— (Attack on Cities)

- - - (Attack on Military Installations)

PERCENTAGE OF U. S. POPULATION KILLED

CHART II

DEATHS FROM ALTERNATIVE ATTACKS
ON U. S. CITIES
(BLAST AND FALLOUT, ALL WEAPONS GROUND BURST)



Fallout at H+1 - 2400 T
U S Population - 180,000,000

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ANNEX B

SIOP-62 AN APPRECIATION

The Single Integrated Operational Plan is the war plan which directs the bulk of U. S. and Allied atomic strike forces in the event of general war with the Sino-Soviet Bloc. The origins of SIOP-62 lie in Study #2009 of the Net Evaluation Subcommittee. The study developed a single list of targets, known as the "optimum mix," and indicated what levels of damage could be accomplished against the target system with varying levels of assurance and capabilities. President Eisenhower approved of the target list and selected the damage and assurance criteria to be used in operational planning.

On 19 August 1960, the JCS issued the National Strategic Targeting and Attack Policy (NSTAP) as guidance for the planning staffs of the unified and specified commanders. Since NESC #2009 had considered the initial attack only, the NSTAP and SIOP-62 are similarly concerned and do not provide for follow-on attacks. The NSTAP laid down two objectives for the planners: (1) to destroy or neutralize the Sino-Soviet Bloc strategic nuclear capability and primary military and government controls of major importance; (2) to attack the major urban-industrial centers of the Sino-Soviet Bloc in order to achieve the general level of destruction selected by the President from NESC #2009.

With this guidance, the Director of Strategic Target Planning (DSTP), assisted by a joint staff in Omaha, established a National Strategic Target List (NSTL), determined the priorities to be given to these targets, and drew up a plan for a coordinated attack on the target system by major U. S. and Allied atomic strike forces. SIOP-62 resulted from this effort and became effective 1 April 1961. Unless changed, it will remain in effect until 1 July 1962 when SIOP-63 is scheduled to supersede it.

SIOP-62 starts from the premise that a single operational plan suffices for the atomic strike forces regardless of the circumstances in which a general war might be initiated. The target list is constant and the only question at issue is how much of the list can be destroyed with what degree of assurance. Consequently, the list is broken into

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two parts: a minimum NSTL containing 2220 primary objective targets, together with 835 active defense installations which must be hit in order to reach the primary objectives; and the full NSTL, which contains 3729 targets. Since many of these targets are co-located, and can be destroyed by a single weapon of sufficiently high yield, the actual number of Desired Ground Zeros (DGZ's) in SIOP-62 adds up to 1077.

The target list is assigned a total value of approximately 5,000,000 points; each target is allocated a certain number of points according to its importance; DGZ's are then "optimized" to destroy the maximum number of targets within a given complex; and finally, the most important DGZ's are assigned to those forces which have the highest probability of surviving and destroying the targets.

In other words, the 'optimum mix' determines what targets should be attacked and when they should be attacked.

Table 1 illustrates in a rough way the targets that are attacked and the relative importance that is attached to them. The Alert Force is assigned 480 DGZ's; the Full Force, as noted, would cover 1077 DGZ's. All countries in the Sino-Soviet Bloc are represented on the target list, but the Soviet Union contains the bulk of the targets. As one example, General Power points out (in JCSM-406-61, Appendix A) that "four SAC alert sorties (11 weapons) are targeted in [redacted]

However, he goes on to say that they "may be withheld at any time prior to launch of the SAC alert force on a calculated risk basis."

The requirement set by President Eisenhower, based on NESC Study #2009, was that the atomic strike forces have a capability to achieve a 75% assurance of inflicting [redacted] severe damage to enemy nuclear delivery capabilities and military and government controls. Similarly, there was to be a 75% assurance of inflicting [redacted] severe damage to the industrial floor space of the Soviet Union and China. A variety of techniques are used to achieve this amount of destruction with the requisite level of confidence. The maximum number of vehicles is launched consistent with the amount of warning received and the readiness of the force. Routes of all vehicles are coordinated, and time over target (TOT) is carefully controlled. The major tactics used to penetrate enemy defenses are:

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Table 1

Targets and their Assignment*

<u>Type of Target</u>	<u>Total Targets</u>	<u>Alert Force Targets</u>
1. <u>Nuclear Threat to the U.S.</u>		
Airfields with nuclear storage and primary staging bases	76	76
Nuclear storage sites	68	68
Missile sites and storage, ICBM**	4	4

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7 September 1961

MEMORANDUM FOR GENERAL TAYLOR

SUBJECT: Strategic Air Planning and Berlin

1. Mr. Kayser's memorandum to you has four major parts: a basic memorandum outlining why he believes strategic air planning needs review in conjunction with Berlin planning; an alternative to SIOP-62, an annex which spells out a possible substitute for the initial attack of SIOP-62, this variation emphasizing surprise and a well coordinated, small-scale attack against Soviet intercontinental strategic capabilities; a brief analysis of SIOP-62, outlining its target philosophy, planning factors, and limitations; and an unaddressed draft request for a planning study on an alternative to SIOP-62. Each of these parts is summarized below.

2. Basic Memorandum. SIOP-62 is built around two concepts that may not be appropriate in a Berlin crisis: (a) it is essentially a strike second plan, and (b) it calls for attacks against a single set of "optimum-mix" targets. Two sets of possible circumstances suggest the need for supplementary and alternate plans, namely, we might be lured out of position by a false alarm or strategic feint by the Soviets, and we might desire to strike first.

a. A false alarm, if it resulted in the launching and recall of the Alert Force, would degrade our capabilities significantly for about 8 hours, at least. Further, the forces held back might not be prepared to attack appropriate targets, the highest priority ones having been assigned the Alert Force, now recalled.

b. The first-strike alternative might occur from escalation of military action around Berlin, which could force US to move from the local to the general war level. This does not appear

an appropriate response to require a 3 division attack, especially since SIOP-62 will almost inevitably alert the Soviets and, in response to our attacks on Soviet cities, they will respond in kind. Rather than this "massive retaliation" plan, small US forces should be used against military targets, and the bulk of our strategic forces should be held in reserve to deter Soviets from using their surviving forces against US cities.

c. Two recommendations follow:

(1) CINCSAC should look at the false alarm problem and make any necessary changes in his plans to minimize degradation of his force under such a development.

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(2) The JCS, Director SFP, and CINCSAC should consider an alternative to SIOP-62 for use in context of Berlin contingency planning, with emphasis on a first strike against the Soviets' long-range striking power.

3. An Alternative to SIOP-62. Its objectives would be to destroy the long-range nuclear offensive capabilities of the Soviet Union; to limit or avoid damage to the United States and its Allies; to limit damage to the Soviet Union compatible with the achievement of the military objective; to have capabilities in reserve available to press home the attack, if necessary, to dissuade the Soviets from using any residual forces against the US and Allied cities."

a. Reliability of present missiles is low, their accuracy uncertain, and problems of achieving simultaneity on target formidable. Therefore, ICBMs, theoretically ideal for this kind of minimum-warning attack, are ruled out at present time.

b. Bombers normally have been rejected as minimum-warning vehicles, primarily because they have operated in mass. But, if 88 DGZ's 2 air bases, staging bases, and ICBM sites — are assumed to constitute the essential targets, the destruction of which would paralyze nuclear threat to US, bomber use becomes more attractive. Further, if 26 of essential targets are staging bases that do not need to be hit in first wave, if 42 targets, close together, can be hit by 21 bombers (each bomber striking two targets within 20 minutes of one another), then to carry out this plan the US must only get 41 bombers into Soviet airspace and over their initial targets within a 15 minute period. (88 DGZ's - 26 staging bases - 21 colocated targets = 41.) Allowing a 25% attrition rate would mean that 55 aircraft, instead of 41, would have to penetrate Soviet airspace. It is further assumed that these aircraft could fan out and penetrate undetected at low altitude, bomb, and withdraw at a low altitude. In sum, success of this first strike would depend upon small numbers, dispersal, and low altitude penetration. (This kind of attack, employing air burst 1 MT weapons, might result in Soviet casualties of less than 1 million and probably not much more than 500,000.)

c. Two questions arise: How valid are the assumptions, and do we possess the skill and capability for such a raid. There are reasons to believe assumptions are reasonable. (These are amplified in some detail, based on statements in NIE's, with emphasis on deficiencies in Soviet low-level detection capabilities.)

d. There are risks as well as opportunities in this approach. With the initiative, the US could reduce the consequences of partial success and exercise some control over Soviet behavior. Once bombs had fallen on USSR, US non-committed forces could be alerted, civil defense measures instituted, air defenses alerted. Compared with SIOP-62, the small-scale,

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minimum-warning attack -- coupled with follow-on raids -- has distinct advantages with respect to recall, achievement of surprise, reduction in Soviet long-range capabilities before launch, and control over the number and character of initial and subsequent attacks.

c. Appendix. Damage assessment to the US from such a minimum-warning attack must deal with uncertainties, but rough calculations can be made.

(1) Damage to US will be affected by the number of Soviet long range forces surviving the initial attack; the numbers and types of targets the US attacked, and the influence of this on USSR war plans; the numbers and yields of USSR weapons per US target, especially in urban areas; the height of burst (which determines fall-out); civil defenses available to US, and uses made of them.

(2) US can attempt to influence Soviet behavior in peace by declaring use of nuclear weapons only against military targets unless enemy initiates a counter-city campaign. This may influence Soviet retaliatory choices by offering Soviets a powerful incentive to use whatever residual forces they command in a sensible manner.

4. An Appreciation of SIOP-62. The SIOP-62 target list is constant, with 1077 DGZ's, of which the Alert Force hits 480.

a. President Eisenhower established requirement that US forces should have the capability to achieve:

[REDACTED] To achieve specified assurance major tactics include: (1) low level attacks (65% of SIOP weapons are so scheduled); (2) high level penetrations that depend on mass; (3) principle of opening corridors through enemy air defenses. Cross-targeting (using different types of vehicles launched from different areas) is employed. Degradation factors are also calculated and allowed for. Allowing for these, the average assurance that one weapon will detonate on target is [REDACTED].

b. Flexibility of SIOP-62 only comes from ability to withhold preplanned strikes. Once the Alert Force is launched, however, selective withholding of its forces is not presently possible.

c. [REDACTED]

d. SIOP-62 is a rigid, all-purpose plan, designed for execution in existing form, regardless of circumstances. Rigidity stems from:

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(1) Military belief that USSR will strike cities, or urban-military targets; hence there is no need for selective US targeting.

(2) Military belief that, regardless of circumstances, USSR will be able to launch some weapons against US. However is real consideration given to possibility of interaction between ours and their targeting philosophy.

(3) Belief that winning general war means coming out relatively better than USSR, regardless of magnitude of losses.

(4) A fear that retaliation against cities after a surprise attack may be all we can do; with US command-control knocked out, alternative plans might leave residual US forces uncertain as to what to attack; US flexibility would become known, and decrease deterrence.

e. SIOP-62 is a blunt instrument, and its tactics almost make certain fulfillment of prophecy that enemy will be able to launch some weapons.

5. Draft Request for Planning Study. Alternative plans should be developed which concentrate on military targets required to eliminate Soviet intercontinental threat, and that minimize damage to Soviet population, industry and governmental authority. Unless justified, attack should be restricted to USSR. Emphasis should be given to minimum-warning attack with minimum sized force. Evaluation of plans should include Soviet force survival, damage to USSR, warning given USSR, damage to US, damage elsewhere, and US follow-on force capabilities. A progress report is requested by 25 September.

/s/

W.Y.S.

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